Utah K-16 Education:
Innovate, Collaborate, Transform

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UTAH PUBLIC EDUCATION SYSTEM

Federal Government

NCLB, Reduced Lunch, Title I & IDEA

Utah State Legislature
School system, budget, & programs

Utah Governor
Veto Power

Utah State Board of Education
Executive Authority

General Control & Supervision
(Educational standards, licensing, programs & fiscal administration)

PUBLIC SCHOOL SYSTEM

District School Boards
State Charter School Board

District Superintendents
District Schools
Charter Schools

Governor, State Agencies, Higher Education

Workforce Alignment - UCAT
Work-based learning grant
STEM grants
UCAP grants
Public accountability reporting
Teacher Prep Programs
Long range education planning

Utah State Office of Education
Staff
Governor, State Agencies, Higher Education

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State Superintendent
Executive Officer

Utah State Office of Education
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State Charter School Board

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Utah State Office of Education
Staff

NCLB, Reduced Lunch, Title I & IDEA
Funding & Programs

Governor, State Agencies, Higher Education

scrap
Changing the Narrative

... on teacher quality
Teachers

What my friends think I do

What my mother thinks I do

What society thinks I do

What my students think I do

What I think I do

What I really do
Changing the narrative

• Teachers work “part time”... 6 or 7 hours a day... 9 months out of the year
• Teach because they couldn’t get into another major
• We need more highly skilled teachers vs. we need to make it easier for people to become teachers
• Teacher candidates coming from bottom third of the class.
4 Year Average ACT Composite Scores of Utah Education Majors Compared to State and National Average
• Measures of academic preparedness (GPA, ACT) of incoming education majors compare favorably to non-education majors, including those entering STEM disciplines, across all Utah public universities

• On average, education students come from the top third of students entering college

• Minimum GPA required for admission to Utah teacher education programs is 3.0, but the average cumulative GPA for education students across Utah public universities ranges from 3.35 to 3.75

The question is not how to attract the best and the brightest into the teaching profession, but rather, how to keep them from leaving the classroom for more promising or financially rewarding careers.
Changing the Narrative

... on teacher quality

... on Utah’s education outcomes
National report shows high overall quality in Utah schools

By Morgan Jacobsen, Deseret News
Published: Wednesday, July 29 2015 5:50 p.m. MDT
Updated: Thursday, July 30 2015 6:06 a.m. MDT

Utah’s education system ranked 14th best overall in a national report published this week by WalletHub. The report measured various metrics, such as reading and math scores, graduation rates and school safety.

SALT LAKE CITY — Utahns aren’t strangers to statistics that show the state's low per-student funding amount and an education system that's about average compared with other states.

But when other factors are added to the mix, Utah's schools may be well above average.

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Summary
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Quality of schools in Utah...
National Ranking Based on NAEP Scores

<table>
<thead>
<tr>
<th>NAEP Scores</th>
<th>Math</th>
<th>Reading</th>
<th>Science</th>
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<tbody>
<tr>
<td>4th Grade</td>
<td>17th</td>
<td>11th</td>
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<tr>
<td>8th Grade</td>
<td>11th</td>
<td>10th</td>
<td>6th</td>
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Utah has the 2\textsuperscript{nd} lowest administrative costs in the nation

\begin{align*}
\text{Hawaii} & \quad \text{Utah} \\
$63 & \quad $64 \\
\text{Average} & \quad $204
\end{align*}

Utah only state to earn an A+ in financial literacy education; Only 4 other states earn A’s.

Utah is a national leader in dual-immersion programs.

14\% increase in the number of students taking the ACT test. Utah’s composite ACT average is 20.2 compared to national average of 21.0, however, nationally only 59\% of students take the ACT vs. 100\% in Utah.
Utah’s graduation rates increased to 84%, which is a 1% increase from last year at 83% and above the national rate of 82%.

In the past 5 years, graduation rates have increased 9%, from 75% to 84%, and dropout rates have decreased from 23% to 13%.

We are closing the graduation gap between low-income and non-low-income students.

We led the nation in growth of Latino high school graduation between 2011 - 2013 - and in the past 5 years graduation rate of Hispanic students has increased 17%
• Utah has the 3rd-lowest tuition in the nation for public universities.

• Utah is 4th in the nation for the percent of population currently enrolled in college, with over 6% of Utahns currently enrolled in higher education.

• In the past decade there has been a 231% increase in Hispanic/Latino student enrollment at Utah’s public colleges and universities (5,041 students to 16,699).

• Utah’s college class of 2014 had the lowest average student debt in the country, at $18,921. This is a decrease from 2013, which was $22,418. The national average was $28,950.
Of course – we have challenges

• Despite overall improvements in public and higher education outcomes, achievement gaps in academic scores and graduation rates persist with minority and low-income students.

• Utah students at high risk for remaining in the intergenerational poverty cycle are still experiencing higher levels of chronic absenteeism, lower proficiency rates in math and reading, and lower pass rates on AP exams on average than their peers.

• Of the 2,417 new teachers who began their teaching careers in Utah schools in 2010, only 58% remained on the job 5 years later (2015).

• Nationally, the pupil-teacher ratio is 16.0 to 1. In Utah it is 23.1 to 1, And the average teacher salary nationally is $56,383, compared to Utah’s average of $49,393.

• In higher education, only about 40% of students are completing a four-year degree within 6 years; the percent of completion raises to 51% within 8 years. (National average: 59% complete within 6 years).
Changing the Narrative

... on teacher quality
... on Utah’s education outcomes
... on technology and innovation in public ed
Changing the narrative

• Schools haven’t changed in the past 50 years.
• We are teaching kids the same things in the same ways as when we were in school.
• Teachers don’t want to use technology – schools don’t want to change
• We are not preparing our students for the changing workforce needs.
Kids Learn STEM Through Fashion Design

A science, technology, engineering and math company offers 3-D printing, robotics and other enrichment courses.

SALT LAKE CITY — Making the transition from middle to high school can be challenging. Now, Salt Lake's Northwest Middle School and West High School are teaming up to help bridge that gap.

"Going from Northwest Middle to West High School, freshman Feysha Aden was worried about "losing friends, keeping grades up and staying who I am." So far, "I've made lots of new friends," says Aden.

Some of those friends are members of the West High School Student Mentor Society, made up of kids who had some of the same fears as Aden going into high school. Sri Shantha is a West High senior and member of the Student Mentor Society. She says, "Freshman year can be really intimidating. Everyone is older than you. It's a brand new team."

Simon Hopkins, a senior at Park City High School in Utah, serves as an instructor at Zanak, a national science, technology, engineering and math (STEM) enrichment franchise. Hopkins recently concluded one of Zanak's six-week fashion design courses at the company's Park City campus. He began each week's class with a brief fashion history lesson, teaching that Converse All Star shoes were originally designed for basketball players, and that Nike, Inc. was named after the Greek goddess of the same name.
Students explore 'nondestructive testing' methods at STEM conference

By Tori Jorgensen, Deseret News
Published: Monday, Oct. 19, 2015 2:35 p.m. MDT
Updated: 22 hours ago

SALT LAKE CITY — Megan Lewis had an unusual school day Monday. Instead of listening to a lecture at Hillcrest High School, she participated in hands-on engineering experiments at the Salt Palace Convention Center as part of a STEM conference.

Lewis and about 60 other students from Hillcrest High and the Jordan Applied Technology Center learned how tests involving ultrasounds, X-rays and electricity can detect defects in structures without destroying them, a process called nondestructive testing.

Students create action art as part of first-ever educational experience

October 19, 2015 6:15 pm • Karissa Nealy Daily Herald

With almost a mile of foil, tape and string, high school students in Spanish Fork created art in action Monday.

More than 120 Maple Mountain High School students were the first ever to participate in one of Oliver Herrings Areas for Action art workshops within a school setting. Herrings, an internationally renowned visiting artist, will be doing four more events in Utah Valley schools throughout this week.

“We're experimenting on site in schools, to see what comes of it, to see how we can make this educational,” Herrings said.

Herrings and Jethro Gillespie, a Maple Mountain art teacher,
Innovation & Collaboration from the Governor’s Office

STEM Grants

• Afterschool programs across the state are engaging students in STEM afterschool activities.
• Last year Department of Workforces Services awarded $6 million to support both in-school and after-school STEM programs for at-risk and underserved students.
• Additional STEM grants are available through the STEM Action Center
• Many of these afterschool programs, like those sponsored by 4-H, are creating “maker spaces” as the foundation of their afterschool program.
Cache Makers
Innovation & Collaboration from the Governor’s Office

UCAP Grants

GOED, DWS and USHE award Utah Cluster Acceleration (UCAP) grants. These grants are designed to strengthen the alignment between industry needs and educational programs with partnerships.

Total Funding Awarded: (SFY 2013 – SFY 2016)
$7,623,695

Results:
- 50 Projects funded
  - 5 Economic Development
  - 25 Different Training Institutions
  - 3 Industry Associations/Non Profits
- 102 Programs developed or expanded
- 2382 Capacity created (new training slots available)
- 671 Individuals participating in Work-Based Learning activities
Aerospace Program to Give Utah High-Schoolers Path Into Industry

Students will get opportunities to work in one of the state's largest industries.

A Boeing employee works on a vertical fin assembly for a Boeing 787 Dreamliner at Boeing in Salt Lake City. When Utah students graduate, they could be building parts for the F-35 fighter jet, rocket engines with Orbital ATK or Boeing 757s.

2016-17 UCAPS Funding Available: $3,525,250

Public Post-Secondary/Industry Associations: $1,560,000

Public Schools (K – 12): $1,000,000

Utah Aerospace Pathways Model Expansion/Replication: $965,250 (funded through USA Funds)
• A new Diesel Mechanics Pathway program was just launched in cooperation with industry partners like Cummins and Komatsu.

• Through UCAP grants and an award from USA Funds, we will replicate the Aerospace Pathways program/model in the IT and Healthcare Science industries, in addition to projects
There are many other education-industry partnerships like the PC CAPS program in Park City (which is expanding to Wasatch district), the AM STEM program at Dixie ATC, and a similar STEM partnership with Cache and Box Elder School Districts and Bridgerland Applied Technology College.
BATC Robotics
Innovation & Collaboration from the Governor’s Office

NGA Work-based Learning Grant

Goals and Preliminary Outcomes

One Goal: Connect Education and Industry

Goal 1.1 – Elevate the importance of work-based learning by increasing the number of students participating in work-based learning activities and the number of employers placing middle-skills STEM interns.

Goal 1.2 – Define and identify additional high-quality middle-skills STEM work-based learning opportunities across the state.

Goal 1.3 – Enhance existing and future work-based learning experiences by aligning coursework with relevant skills and industry-recognized credentials.

$100,000 Grant, plus technical assistance from National Governors Association. Utah team includes:

Governor’s Office
GOED, DWS
USOE
USHE

Chamber of Commerce
Private Industry
State Workforce Development Board
UCAT
CONNECTING EDUCATION AND INDUSTRY

STRATEGIES

Identify Partners
Replicate Successful Models
ReFocus Career Pathways
Scale STEM
Intensive Industries
Initiate Policy Changes

PARTNERS

ACTIVITIES

Governor’s Summit
Statewide Advertising
Map Existing WBL Support
Career Pathways Connections
Scale Talent Development Systems
5-Year Action Plan
Assessment Plan

CTE Learning that works for Utah
New Skills for Youth Initiative

$100,000 Planning grant to USOE, with possibility of a $2 million follow-up grant in years 2-3.

Goal: Create a Utah Career Pathways System to replace current CTE Pathways

- Not terminal at high school level, but will transition to postsecondary
- Not state-level perspective, but will have a regional perspective
- Not education driven, but will be industry driven
- Will contain career guidance and advisement
- Will contain high-quality work-based learning experience
- Will culminate in a credential of value
- Identify career readiness indicators to be included in the state school accountability system
- Increase regional efforts patterned after UAP model
- Increase leveraging of funds patterned after UCAP model
- Enhanced articulation between K-12, USHE and UCAT that remove current barriers
The work to improve Utah K-16 Education:

Innovation
Collaboration
Transformation

Promote Utah solutions to Utah challenges

“Teachers are the architects of the change we’ve been waiting for.”

2012 National Teacher of the Year, Rebecca Mieliwocki
“We have heard a lot of talk among policymakers over the past few years about the need to completely reform education. What we ought to be talking about is transforming education. Let’s build upon all our past successes, the good we have already accomplished, and take education in Utah to a whole new level.”

*Governor Herbert*

The late Dr. Chase Peterson, former president of the University of Utah, described his vision for education this way: “*Preserving the good and promoting the better.*”

"While these reformers talk a lot about markets and competition, the essence of a good education — bringing together talented teachers, engaged students and a challenging curriculum — goes undiscussed."

*David L. Kirp*
**Intrapreneur**: an employee of a large corporation who is given freedom and financial support to create new products, services, systems, etc., and does not have to follow the corporation's usual routines or protocols.

**Utah Education Intrapreneur**: employees of Utah education, public, and private organizations who are given freedom and support to create new programs, services and systems that enhanced learning opportunities and improved student outcomes which meet local and state needs and do not rely on outside parties to “dictate” innovation.

Utah *ed*trapreneurs!
Utah Education Intrapreneurship

Weber-Roy Cone Project
Davis Advantage Math Curriculum
Alpine’s Foothill Elementary STEAM
SLC Peer Assistance Review
JUAB LMS and Competency Based Education
Southern Utah University – JumpStart General Education
Salt Lake Community College – Open Education Resources
Park City CAPS
Utah Aerospace Pathways
BATC Robotics
4-H Makers
The work to improve Utah K-16 Education:

Innovation
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